

**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

**Gregory Scott  
Edward A. Garvey  
Marshall Johnson  
LeRoy Koppendrayner  
Phyllis Reha**

**Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner**

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**In the Matter of the Commission's  
Review and Investigation of Qwest's  
Unbundled Network Element (UNE)  
Prices**

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**) PUC Docket No. P-421/CI-01-1375  
) OAH Docket No. 12-2500-14490-2  
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**QWEST CORPORATION'S**

**AFFIDAVIT**

**OF**

**GEORGANNE WEIDENBACH**

**February 5, 2002**

### **AFFIDAVIT OF GEORGANNE WEIDENBACH**

1. My name is Georganne Weidenbach. I am employed by Qwest Communications International as a Director in the Technical Regulatory Group, Local Network Organization. From 1996 to 1998, I served as the Lead Project Manager for Collocation and Interconnection for U S WEST, Inc., before the merger of Qwest and U S WEST.

2. I have held numerous positions with Qwest and U S WEST, including planning strategist and contract negotiator, where I provided subject matter expertise for collocation, and other topics related to interconnection. I also managed the Design Services installation and repair dispatch center for the Local Network Organization. In addition to these positions, I have extensive Marketing, Public Policy and Engineering background, including the development of written methods and procedures for Design Services and Collocation applications.

3. I hold a Bachelor of Science degree in business from Regis University, at Denver.

4. I filed direct testimony before the state of Minnesota, PUC Docket No. P421/CI-01-1375, In the Matter of the Commission's Review and Investigation of Qwest's Unbundled Network Element (UNE) Prices on December 14, 2001.

5. I have reviewed Covad's brief and it appears that they seek to line share over loops that are comprised of fiber feeder facility ("F1") and copper

distribution facility ("F2"). For example, loops may be comprised of copper, fiber, or a mix of copper and fiber with digital loop carrier ("DLC") systems (i.e. copper or fiber fed DLCs). The key point missing in the Covad brief is the fact that line sharing (the DSLAM) must be placed on copper. The capability to take the data back to the central office is available to the CLECs in the form of unbundled network elements and services of the CLECs choosing. Qwest provides unbundled network elements ("UNEs") to assist CLECs in line sharing, in all of these scenarios.

- A) Line Sharing over all copper loops --** Line sharing is driven by the splitter functionality on a copper loop at the digital subscriber line access multiplexer ("DSLAM") location in the ILEC central office.
- B) Qwest's remote DSLAM deployment --** Qwest places its own DSLAMs at remote locations in a cabinet at a cross box on the copper loop. The cross box is located at the end of the feeder where the feeder and distribution of the loop are cross connected. CLECs have the capability to place their DSLAMs in the same cabinet as Qwest's DSLAM is placed. The fiber in a DLC architecture feeds the DLC RT. From that RT to the cross box, the media can be either fiber or copper. Qwest offers multiple options for CLECs to connect from the DSLAM location back to the central office.
- C) Line Sharing over fiber fed DLC --** Qwest facilitates line sharing for all CLECs on any type of loop by allowing a CLEC to place a DSLAM in remote

collocation at any premises in the outside plant and purchase unbundled subloop transport back to the central office.

- D) Unbundled packet switching (“UPS”) --** Qwest remains ready to offer UPS between the customer and the CLEC collocation in the central office where all four FCC conditions have been satisfied, i.e. where Qwest has deployed packet switching and where there is no space for remote collocation, no subloop transport available or no copper alternative.
- E) Card at a time placement –** Card at a time placement is not viable due to the need to utilize not only a line card (the “card at a time”) but also the functionality of a control card and a trunk card. There is no universal card to provide a combination of loop concentration and high speed access. Control cards are static and cannot be partitioned. There are no universally adopted standards that support interchangeable DSLAM components.

I will address each of the above issues in the following sections of this affidavit.

- 1) Line Sharing over an all copper loop – True “Line Sharing” takes place via a DSLAM located in the central office near a splitter over an all copper loop which does not exceed 18kf in length.

Under current design standards when the loop is longer than 18kf (and often when it is longer than 12,000 ft.) it is usually comprised of fiber feeder facilities (F1) and copper distribution facilities (F2). When this occurs, line sharing, or DSL, cannot take place from the central office, but instead

requires remote DSLAM placement, where the copper distribution portion of the loop can be accessed. This is known as remote DSLAM deployment and can be accomplished by CLECs via remote collocation in the outside plant, in Qwest's architecture this is facilitated via remote collocation at "DA hotels."

Line sharing provides the high frequency inherent in the copper facilities for delivering xDSL services. In order for a service provider to deliver DSL services to its end users, a DSLAM must be placed, either, at the central office or at a remote terminal ("RT") in the outside plant, and always next to the splitter. Remote deployment of the DSLAM requires access to a cross connection for the presentation of the loop to the splitter. In cases where the end user customer is served via DLC, in order to provide DSL services, the DSLAM must be located in an RT where access to the copper distribution facility is located.

- 2) Line Sharing on fiber fed DLCs -- For loops that are served over fiber fed DLC, Qwest provides CLECs access to products that facilitate DSLAM placement in remote terminals, thus line sharing. Qwest provides CLECs two options for remote collocation at "DA Hotels" where loops are fed via fiber fed DLCs:

- Joint planned DA Hotel placement provides CLECs with DA locations where Qwest is placing its own remote DSLAMs.

- Qwest has overbuilt the DA Hotels to accommodate CLEC collocations; CLECs will always have access to a minimum of 15% of the DA Hotel for collocation space. A CLEC may request collocation at any Qwest OSP premises, including the DA Hotel, using standard collocation intervals.

- 3) Qwest's remote DSLAM deployment – Qwest's remote DSLAM deployment provides DSL services to loops that are fed with DLC. Qwest does not utilize the DLC technology that COVAD describes in its brief. Instead, Qwest has chosen the DA Hotel architecture) to ensure the greatest Quality of Service (QoS) to its customers (i.e., it's closer to the customer). In fact, in locations where Qwest serves its customers on DLC, it excludes itself from providing DSL to that customer at the central office. So, it must deploy its DSLAMs remotely where DLC exists in the loop, just as a CLEC would do.

In fact, Qwest provides CLECs the same opportunity to place their DSLAMs in Qwest's DA Hotels, that Qwest has engineered to ensure space is available. In addition, Qwest provides CLECs the opportunity to market and enter a geographic area with its DSL services through "joint planning" in substantially the same time and manner as Qwest.

- 4) Unbundled Packet Switching – Qwest offers its packet switching product in accordance with the rules set forth by the FCC.

The FCC rules on Packet Switching requires the ILECs to provide Packet Switching only after four conditions are met. They include :

- (i) The [ILEC] has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities in the distribution section (e.g., end office to remote terminal, pedestal or environmentally controlled vault);
  - (ii) There are no spare copper loops capable of supporting the xDSL services the requesting carrier seeks to offer;
  - (iii) The [ILEC] has not permitted a requesting carrier to deploy a Digital Subscriber Line Access Multiplexer in the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these subloop interconnection points as defined by paragraph (b) of this section; and
  - (iv) The [ILEC] has deployed packet switching capability for its own use.
- 5) Card at a time placement is not viable due to the need to utilize not only a line card (the card at a time) but also the functionality of a control card and a trunk card. There is not universal card to provide a combination of loop concentration and high speed access. Control cards are static and cannot be partitioned. This creates a lack of demarcation which drives a lack of testability at the DSLAM. Such a situation results in the compromising of network reliability; this occurs in performing trouble isolation. The card is

comprised of multiple end users and functionality; the card also provides the voice splitting and data frequency. The card is not capable of segregating trouble isolation and alarm monitoring. No mechanism exists today for partitioning of the network management system and therefore, bandwidth allocation. In addition, no mechanism exists today for defining responsibilities for maintenance and repair (Who owns what?). There are no universally adopted standards that support interchangeable DSLAM components. Additionally, "card at a time" collocation would not work unless Qwest also provided UPS to connect the card with the central office because the card cannot use a subloop transport channel back to the central office. Card at a time is often referred to as "plug and play," this is a CPE concept and is inappropriate in the context of shared network elements.

Covad claims that it cannot afford the expense of remotely collocating a DSLAM and thus Qwest should provide lower cost solutions such as UPS (even where the FCC required 4 conditions are not met). Covad does not specify any specific costs related to their claim of lack of affordability, but Qwest believes that its own costs of installing remote DSLAMs and collocation hotels are much higher than Covad's. Attachment A to my affidavit shows that Qwest estimates that it will cost approximately \$90,000 per remote DSLAM; this includes construction of the collocation hotel. Thus Covad's expenses pale in comparison to Qwest's.



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Georganne Weidenbach

SUBSCRIBED AND SWORN to before me on this \_\_\_\_ day of February, 2002.

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(Print Name of Notary)

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(Signature of Notary)  
NOTARY PUBLIC, residing at

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My appointment Expires: